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To the Member of the Press:

Development of a non-destructive depth-selective quantification method for sub-percent carbon contents in steel using negative muon lifetime analysis

Professor Kenya Kubo (Major: Chemistry, Environmental Studies) of International Christian University (ICU; President: Shoichiro Iwakiri; Mitaka-shi, Tokyo, Japan) along with other researchers proposed a novel method of quantifying the bulk C content in steel non-destructively using muons. This revolutionary method may be used not only in the quality control of steel in production, but also in analyzing precious steel archaeological artifacts. The research result was published on the *Scientific Reports* on Saturday, January 20, 2024: <https://doi.org/10.1038/s41598-024-52255-5> (DOI)

Title: "Development of a non-destructive depth-selective quantification method for sub-percent carbon contents in steel using negative muon lifetime analysis"

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The experiment for this research was conducted at J-PARC MLF MUSE: 2019A0281, 2020A0193, 2021B0387.

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